



## INSTALLATION, OPERATION AND MAINTENANCE MANUAL

### **Warning**

Please read carefully before proceeding with installation. Your failure to follow any attached instructions or operating parameters may lead to the products failure and possible damage to property.

**Save manual for future reference**

**MODEL**

**WP-5**



System Tested and certified by NSF International against ANSI/NSF Standard 58 for the reduction of claims specified on performance data sheet.

Refer to enclosed warranty for operating parameters to ensure proper use with your water supply.

Watts Premier, Inc.  
Phone: 800-752-5582

1725 W. Williams Drive C-20  
[www.wattspremier.com](http://www.wattspremier.com)

Phoenix, AZ 85027  
Fax: 623-931-0191

**Thank you for your purchase of a state of the art Watts Premier Reverse Osmosis (RO) water treatment system.** Water quality concerns are quickly becoming more of a focus for the public. Lately you may have heard about contaminants in the drinking water, such as arsenic, chromium, cryptosporidium or Giardia. There may also be some local water issues in your area such as high levels of lead and copper. This Watts Premier water treatment system has been designed and tested to provide you with high quality pure water for years to come. The following is a brief overview of the system.

**Your Reverse Osmosis System:**

Osmosis is the process of water passing through a semi permeable membrane in order to balance the concentration of contaminants on each side of the membrane. A semi permeable membrane is a barrier that will pass some particles like pure water, but not other particles like arsenic and lead.

Reverse osmosis uses a semi permeable membrane; however, by applying pressure across the membrane, it concentrates contaminants (like a strainer) on one side of the membrane, producing crystal clear water on the other. This is why RO systems produce both pure drinking water and waste water that is flushed from the system. This reverse osmosis system also utilizes carbon block filtration technology, and can therefore provide a higher quality drinking water than carbon filtration systems alone.

Your system is a five stage RO which is based upon five separate treatment segments within the one complete water filtration system. These stages are as follows:

**Stage 1 – Sediment filter, recommended change 6 months.**

The first stage of your RO system is a five micron sediment filter that traps sediment and other particulate matter like dirt, silt and rust which affect the taste and appearance of your water.

**Stage 2 and 3 – Carbon filters, recommended change 6 months.**

The second and third stages each contain a 5 micron carbon block filter. This helps ensure that chlorine and other materials that cause bad taste and odor are greatly reduced.

**Stage 4- Membrane, recommended change 2-5 years.**

Stage four is the heart of the reverse osmosis system, the RO membrane. This semi permeable membrane will effectively take out TDS, Sodium and heavy metals as well as Cysts, such as Giardia and cryptosporidium. Because the process of making this high quality drinking water takes time, your RO water treatment system is equipped with a storage tank.

**Stage 5- Carbon inline filter, recommend change 6 - 12 months.**

The final stage is an inline granular activated carbon (GAC) filter. This filter is used after the water storage tank, and is used as a final polishing filter.

**System Maintenance**

Just because you can not taste it, does not mean that it is not there. Contaminants such as lead, chromium and arsenic (to name a few) are undetectable to the taste. Additionally, over time if you do not replace the filter element, other bad tastes and odors will be apparent in your drinking water.

This is why it is important to change out your filter at the recommended intervals as indicated in this system manual. When replacing the filter elements, pay special attention to any cleaning instructions. Should you have any further questions please refer to our website at [www.wattspremier.com](http://www.wattspremier.com) or call our customer service dept. at **1-800-752-5582**.

With proper installation and maintenance, this system will provide you with high quality water for years to come. All of Watts Premier's water enhancement products are rigorously tested by independent laboratories for safety and reliability. If you have any questions or concerns, please contact our customer service department at 1-800-752-5582 (outside USA 623-931-1977) or refer to our on-line trouble shooting at [www.wattspremier.com](http://www.wattspremier.com).

## Table of Contents

Operational Parameters .....	4
Contents of Reverse Osmosis System .....	4
Tools Recommended For Installation .....	4
Drill a Hole for the Faucet in a Porcelain Sink .....	5
Punch a Hole for the Faucet in a Stainless Steel Sink .....	5
Faucet Installation .....	6
Adapta Valve Installation .....	7
Reverse Osmosis Module Mounting .....	7
Drain Saddle Installation .....	8
Tank Elbow Installation .....	8
Green Tube Connection .....	9
Blue Tube Connection .....	9
3/8" Black Tube Connection .....	10
How to use Quick Connect Fittings .....	10
Red Tube Connection .....	11
10" Final Filter Installation .....	11
Start up Instructions .....	12
Semi Annual Maintenance .....	13
Annual Maintenance .....	14
Membrane Maintenance .....	14
Changing flow Restrictor .....	15
Checking Air Pressure in the Tank .....	16
Trouble Shooting .....	17
Arsenic Fact Sheet .....	18
California Certification .....	19
One Piece Manifold Drawing .....	21
Parts List .....	21
Other Products .....	22
Warranty Registration .....	25
Service Record .....	27
Limited Warranty .....	28

# Operational Parameters

Operating Temperatures:	Maximum 100°F (37.8°C)	Minimum 40°F (4.4°C)
Operating Pressure:	Maximum 85 psi (6.0 kg/cm <sup>2</sup> )	Minimum 40 psi (2.80 kg/cm <sup>2</sup> )
pH Parameters:	Maximum 11	Minimum 3
Iron:	Maximum 0.2 ppm	
TDS (Total Dissolved Solids):	< 1800 ppm	
Turbidity:	< 5NTU	

**Hardness:** Recommended hardness should not exceed 10 grains per gallon, or 170 ppm. System will operate with hardness over 10 grains but the membrane life will be shortened. (Addition of a water softener may lengthen the membrane life.)

**Note:** The operating pressure in your home should be tested over a 24 hour period to attain the maximum pressure. If it is above 80 psi a pressure regular is recommended and if over 100 psi then a pressure regulator is required. Should you need a guage to check your pressure, see page 25 (item no. 261003).

**Note:** Reverse Osmosis water should not be run through copper tubing as the purity of the water will leach copper and cause an objectional taste in water and may cause pin holes. Be sure to follow any state or local regulations.

## Contents of Reverse Osmosis System

- 1 Tank – White
- 1 Module – White
- 1 Parts Bag – With a Final Filter
- 1 Faucet Bag
- 1 Manual and Warranty Card

*If any of the items are missing please contact Premier prior to installing.*



## Tools Recommended For Installation

- ✓ 1 1/4" Hole Saw Bit for Faucet opening
- ✓ Round Knock out Punch for Stainless Sinks, 1/2" & 1 1/4"
- ✓ Adjustable Wrench
- ✓ Sharp Knife
- ✓ 1 / 2" - 13/16" Open End Wrenches
- ✓ Phillips Screw Driver
- ✓ Needle Nose Pliers – Adjustable Pliers
- ✓ Electric Drill
- ✓ 1/8", 1/4" & 3/8" Drill Bits



## Drill a Hole for the Faucet in a Porcelain Sink

Note: For the Air Gap Faucet (included), a 1 1/4" hole will be required. If using a non air gap faucet, a 3/4" hole will be required.

Porcelain sink surface material is extremely hard and can crack or chip quite easily. Use extreme caution when drilling. Watts Premier accepts no responsibility for consequential damage resulting from the installation of faucet.

Most sinks are predrilled with 1 1/2" or 1 1/4" diameter holes (if you are already using it for a sprayer or soap dispenser, continue to step 1).

**Caution: Professional installation may be required for Granite or Corian surfaces.**

Step 1 Determine desired location for the faucet on your sink and place a piece of masking tape on location where the hole is to be drilled. Mark the center of the hole on the tape.

Step 2 Using a variable speed drill on the slowest speed, drill a  $1/8$ " pilot hole through both porcelain and metal casing of sink at the center of the desired location. (If drill bit gets hot it may cause the porcelain to crack or chip), use lubricating oil or liquid soap to keep cool.



Step 3 Using a 1 1/4" hole saw, proceed to drill the large hole. Keep drill speed on the slowest speed and use lubricating oil or liquid soap to keep the hole saw cool during cutting.



Step 4 Make sure the surroundings of the sink are cooled before mounting the faucet to the sink after drilling. Remove all sharp edges.



## Punch a Hole for the Faucet in a Stainless Steel Sink

Note: If mounting faucet to a Stainless Steel Sink you will need a 1/2" & 1 1/4" Hole Punch. The faucet opening should be centered between the back splash and the edge of the sink, ideally on the same side as the vertical drain pipe.

Step 5 Drill a 1/4" pilot hole. Use a 1/2" Hole Punch and an adjustable wrench to punch the hole in the sink. Change to the 1 1/4" Hole Punch to enlarge the hole.

The faucet can now be installed.

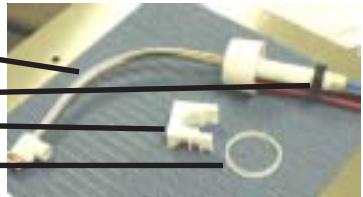


# Faucet Installation

Step 6 Gather and identify the Wave faucet pieces.

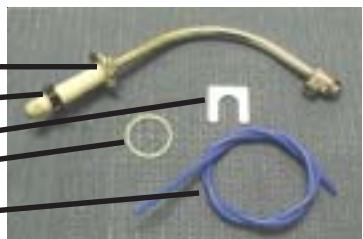
**Air Gap Faucet**

- Faucet assembly
- Black Shank Nut
- Spacer
- Gasket



**Non Air Gap Faucet**

- Faucet assembly
- Black Shank Nut
- Slotted washer
- Gasket
- 3' Blue Tube



Step 7 Remove black shank nut and insert the three tubes (air gap faucet) through the white gasket with the groove on the gasket toward the faucet base.



Step 8 Drop the three tubes through the 1 1/4" hole in the sink. The white gasket must be on top side of the sink.



Step 9 From under the sink, insert the white plastic spacer as shown. (A slotted washer is used if it is a non air gap faucet.)

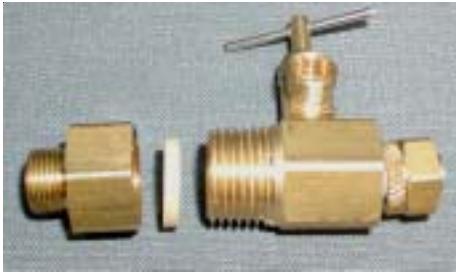


Step 10 Thread the black shank nut back onto the white threaded stem and tighten within 1/4" of plastic spacer. Check the orientation of the faucet above the sink and tighten the black plastic washer until white plastic spacer is snug and faucet stands securely on top of the sink. (For a non air gap faucet, the blue tube will have to be pushed into the faucet fitting at the bottom of the faucet. Push the tube all the way into the "tube stop" inside the fitting.)



**Note:** A dripping or gurgling sound may be heard coming from the air gap hole on the faucet or the drain when the system is running. This is normal and in compliance with UPC (Universal Plumbing Code).

## Adapta Valve Installation



Configuration for 3/8" compression fittings



Configuration for 1/2" compression fittings



Hot water angle stop valve

Cold water angle stop valve

Step 11 Turn off cold water supply to the kitchen faucet by turning the angle stop valve clockwise.

Step 12 Attach adapta valve as illustrated in the three photos above, choosing the configuration that fits your plumbing. Please note when attaching the adapta valve to straight pipe threads use Teflon tape on the threads. The green tube from inlet side of RO module will be cut to length and attached later in the installation.

**Caution:** Water supply line to the system must be from the cold water supply line. Hot water will severely damage the system.

## Reverse Osmosis Module Mounting

Step 13 Determine best location for the RO module to be mounted to allow for future system maintenance. The parts bag has 2 self tapping screws. Using a phillips screwdriver, screw them into the cabinet wall 6" apart and at least 16" from the bottom of the cabinet.



# Drain Saddle Installation

**Drain Saddle fits standard 1 1/4" – 1 1/2" drain pipes**

Step 14 Gather the pieces of the drain saddle found in parts bag.

- 1 Black compression nut
- 1 Semi-circle bracket with fitting
- 2 Screws
- 1 Foam washer
- 2 Nuts for screws
- 1 Semi-circle bracket

(Fig. A)



(Fig. A)

Step 15 The black square foam gasket with a hole cut out of the middle must be applied to the inside of the drain saddle. Remove sticky tape backing and stick to the drain saddle matching holes as shown. Be sure to remove the hole cut out. (Fig. B)

Step 16 Drill a 1/4" hole through the drain pipe at least 1 1/2" above the nut of the P-trap to allow for the removal of the P-trap. Assemble the drain saddle around the drain pipe. Position the drain saddle over the drilled hole in pipe. Insert screw driver into the opening of the drain saddle and align with drilled hole in drain pipe. Using Philips screw driver tighten screws evenly and securely on both sides of the drain saddle. Over tightening the screws may break drain saddle. **Caution: Hand tighten compression nut. If necessary you can turn 1/4 turn with a wrench.** Attach black compression nut, but do not tighten at this time. The black tubing will be installed later.



(Fig. B)



# Tank Elbow Installation

Step 17 Wrap (7 to 12 turns) Teflon tape clockwise around the male pipe threads (MPT) on the Stainless Steel fitting on top of the tank.

Note: Do not let the tape cover the opening.



Step 18 Thread the plastic elbow (supplied in the parts bag) onto the stainless steel connection on the top of tank. Tighten using an adjustable wrench. **Do not over tighten as plastic could crack.**

**Caution: Do not teflon tape the compression fitting threads as this may cause leaks.**



## Green Tube Connection

Step 19 Measure the green tube coming from the port marked TAP on the Reverse Osmosis Module over to the adapta valve attached to the Angle Stop Valve. Leaving a gentle curve in the tubing so the tube does not kink. Cut to desired length using a sharp knife.

Step 20 Remove a brass nut, plastic delrin sleeve and brass insert from the parts bag. Slide the nut on the tube first, then the Delrin sleeve (Small taper end of Delrin sleeve must point to the end of tube). Then insert the brass Insert into the end of the tube.



Step 21 Insert the green tube into the  $\frac{1}{4}$ " opening on adapta valve until it stops. Slide nut and sleeve down and thread onto the male pipe threads. Hand tighten brass nut, add one full turn with a  $\frac{1}{2}$ " wrench for secure fit.



## Connect Blue Tube from TANK port on RO Module to the Tank

Step 22 Position tank in desired location. Stand it upright or lay it on its side (using the black plastic stand). Measure the blue tube from the RO module port marked TANK over to the tank and cut it to desired length.

Step 23 Insert the blue 3/8" tube into the compression nut as far as it will go. Tighten the compression nut securely with a wrench.



## 3/8" Black Tube Connection

Note: The tubing must be as SHORT and STRAIGHT as possible to the drain saddle, making a downward slope from module to drain saddle to allow for proper drainage.

Step 24 Measure the black tube from faucet to the black drain saddle and make a straight cut with a sharp knife though tube.

Step 25 Remove black plastic nut from drain saddle. Slip black tube through black nut. Insert black tube into the opening in the drain saddle and hand tighten the black nut, and add 1/4 turn with a wrench.

Note: This is a gravity fed line, if there is any bend or dip in the tube the rinse water will not flow into the drain properly. Water will back up and come out the air gap hole in the back of the faucet base.

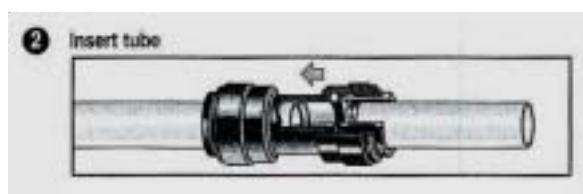


### How to use the quick connect fittings on the RO Module

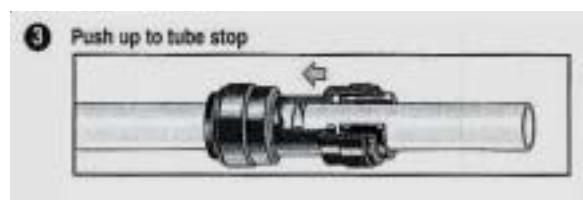
To make a connection, the tube is simply pushed into the fitting. Place a piece of tape 1/2" from end of tube to indicate how far the tube should be inserted. The unique patented John Guest® locking system holds the tube firmly in place without deforming it or restricting flow.



Cut the tube square. It is essential that the outside diameter be free of score marks and that burrs and sharp edges be removed before inserting into fitting.



Fitting grips before it seals. Ensure tube is pushed into the tube stop.



Pull on the tube to check that it is secure. It is a good practice to test the system prior to leaving site and /or before use.



Push the tube into the fitting, to the tube stop. The collet (gripper) has stainless steel teeth which hold the tube firmly in position while the O-ring provides a permanent leak proof seal.



To disconnect, ensure the system is depressurized before removing the tube. Push in collet squarely against face of fitting. With the collet held in this position, the tube can be removed. The fitting can then be re-used.

## Connect the Red Tube from Faucet to RO Module

Step 26 Insert the red 1/4" tube from the faucet into the port on the module marked DRAIN. Make sure the tube is pushed in all the way to the tube stop.



## Final Filter Installation

Step 27 The Final Filter and 2 white plastic connectors are in the parts bag.



Step 28 Remove the blue caps from the final filter.



Step 29 Thread the smaller (1/4") white plastic connector into the end of the Final Filter and tighten , (flow arrow on filter points to the 1/4" connector).



Step 30 Thread the larger (3/8") white plastic connector into the other end of the final filter.

Step 31 Insert the 1/4" blue tube attached to the faucet into the outlet of the filter. The flow arrow should be pointing toward the faucet. Insert the 3/8" blue tube attached to the module into the 3/8" inlet white connector on the in-line Final Filter. Tighten the white compression nuts with an adjustable wrench.



## Start up Instructions

- Step 1 Turn on the incoming cold water at the angle stop valve. Open the needle valve on the brass Adapta Valve by turning counter clockwise. Check the system for leaks and tighten any fitting as necessary. (Check frequently over the next 24 hours to ensure no leaks are present).
- Step 2 Open the RO faucet and leave it open until water begins to trickle out, (it will come out slowly).
- Step 3 After water trickles out of the faucet, close RO faucet so the tank will fill with water. The tank will take 6 to 10 hours at first to fill completely depending on the size of the membrane, local water temperature and pressure.
- Step 4 After the Tank has filled, open the RO Faucet to flush the Tank completely to remove carbon particles from final filter. Repeat this step two more times. The fourth tank can be used for drinking. Note: The flushing of the tank 3 times is only necessary during initial installation. This should take about a day to complete.
- Step 5 If system is connected to an Ice Maker, turn the Ice Maker off until flushing is complete and the tank has refilled. The system should have an in-line valve installed before the Ice Maker so it can be closed to prevent water flowing to the Ice Maker. Your tank must be allowed to fill up in order for the unit to shut off. (If you are installing an Ice Maker Kit, tee off after the final filter).
- Step 6 Register warranty by mail, phone, or internet. Watts Premier uses this information only to provide a filter change reminder service. Pre-filters should be changed every six months. You may register your warranty via our website at [www.wattspremier.com](http://www.wattspremier.com) or call 1-800-752-5582 (within USA only).
- Step 7 Your reverse osmosis system contains replaceable treatment components that are critical for effective contaminant reduction. Periodic inspection and following proper system maintenance is critical for continued performance.

# 6 Month System Maintenance

Watts Premier sells a filter change kit which includes pre-filters, orings, a final filter, connectors, and a wrench. Call 1-800-752-5582 or buy online at [www.wattspremier.com](http://www.wattspremier.com).

- ✓ One 10" sediment filter (part no. 104017)
- ✓ Bucket to catch water from filter housings.
- ✓ Two 10" carbon filters (part no. 101009)

Step 1 Turn off incoming water supply to the RO by turning the needle valve on the adapta valve clockwise. (The green tube is connected to the adapta valve.)



Step 2 Open RO Faucet to allow water to drain from the tank until completely empty. Water can be saved in a container for drinking or to rinse system parts.

Step 3 Let system sit for 10 – 15 minutes after tank is empty to depressurize before attempting to remove filter housings.

Step 4 For more leverage, leave RO module attached to wall of cabinet. If you are unable to access the module you may remove it to change filters. Starting with the closest housing, remove and empty water, then discard filters. Continue on to the 2<sup>nd</sup> and/or 3<sup>rd</sup> Bowls.

Step 5 Clean all filter housings (bowls) with a mild soap solution and rinse with water. Check O-rings and lubricate with water soluble lubricant. KY Jelly®, Canola oil and other water based lubricants can be used, petroleum based lubricants (such as Vaseline®) must not be used.

Step 6 The sediment filter has a cloth like appearance. It should be in the 1<sup>st</sup> housing on the side with tubing connections.



**Caution:** Check O-rings to make sure they are still in place.

Step 7 Insert the Carbon Block filter (filter has a gasket on each end) into the middle housing.

Step 8 Repeat this step for 3<sup>rd</sup> housing .



**Note:** If also doing the annual maintenance at this time continue to Step 2 on page 14.

Step 9 Turn water on to the unit by turning the needle valve on the adapta valve counter clock wise.

Step 10 Open RO faucet and leave open until water begins to trickle out. Close RO faucet to allow tank to fill with water.

# Annual Maintenance

Step 1 Perform 6 month system maintenance. (previous section)

**Note:** Be sure water is turned off before going to step 2.

Step 2 The Final Filter (should be replaced annually. Remove white nuts at both ends of the filter to replace the old final filter. Replace with new filter and connectors (as shown on page 10). The white nuts can be re- used so they do not have to be removed from the tubes.

**Note:** Flow arrow on final filter must be pointing in the direction of the faucet.

Step 4 Annual sanitizing of unit is recommended to prevent bacteria growth. Remove the Blue Tube from the module marked TANK.

Step 5 Using a clean eye dropper insert  $\frac{1}{2}$  teaspoon of 3% hydrogen peroxide or common household bleach into the blue tube. This will flow into the tank once water is turned back on to unit. Reattach the blue tube to the port marked TANK on the module. Then follow step 3 and 4 on page 12 in the start up procedure .



## Membrane Maintenance

Membranes have a life expectancy of between 2 and 5 years, depending on the incoming water conditions and the amount of use of the RO system.

Normally, a membrane would be replaced during a semiannual or annual filter change. However, if at any time you notice a reduction in water production or an unpleasant taste in the reverse osmosis water, it could be time to replace the membrane. A water sample may be sent Watts Premier for a free test or a TDS (total dissolved solids) monitor can be purchased from Watts Premier to test the incoming and reverse osmosis water at home.

To send a water sample, using 2 clean containers put  $\frac{1}{2}$  cup of tap water in one container and  $\frac{1}{2}$  cup of reverse osmosis water in 2nd clean container. Clearly mark each container. Watts Premier will test the water and call or mail you the results.

Step 1 Turn off the cold water supply and open the RO faucet to drain the tank.

Step 2 Remove the membrane vessel on top of the unit by turning the vessel counter clockwise to loosen.



Step 3 Pull firmly on the membrane to remove from the housing and discard.



Step 4 Unwrap new membrane and lubricate the o-rings with water soluble lubrication such as KY Jelly® before inserting into housing. Insert end with the two black O-rings into the cap. Twist the membrane as you push firmly into the cap.



Step 5 Replace the vessel onto the cap by turning clockwise. Tighten securely.



## Changing the Flow Restrictor

Step 6 The flow restrictor plug (part no. 164015) must be replaced each time you change the Membrane (part no.110009.) Remove the existing flow restrictor with a screwdriver and discard.



Step 7 Insert the new flow restrictor plug and tighten.



Step 8 Follow the Start Up Instructions on page 11.

## Checking Air Pressure in the Tank

Note: Check air pressure when tank is empty.

Step 1 Use a digital air gauge to check the air pressure in the tank. You should always have between 5 -7 psi on an empty tank. If you have more than 7 psi release air and recheck. If you have less than 5 psi, add air. Air can be added with a bicycle pump.

Your unit comes with a stand for your storage tank to sit on if you need to turn the unit on its side. This allows air flow under the tank keeping moisture and standing water from rusting out the bottom of your tank which voids your warranty.



# TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTIONS
1. Low/Slow Production	Low Water Pressure	Assure a minimum of 40 psi incoming water pressure. Premier sells a booster pump if home water pressure is low. Make sure water supply is turned on and Adapta Valve is all the way open.
	Crimps in tubing	Check tubing and straighten or repair as necessary.
	Clogged pre-filters	Replace pre-filters.
	Fouled membrane	Replace membrane and flow restrictor.
2. Milky Colored Water	Air in system	Air in the system is a normal occurrence with initial start up of the RO system. This milky look will disappear during normal use within 1-2 weeks. If condition reoccurs after filter changes, drain tank 1 to 2 times.
3. Water constantly running / unit will not shut off	Low water pressure	See #1 above
	Crimp in supply tube	Check tubing and straighten or repair as necessary.
	High water pressure	Check incoming water pressure to make sure it does not exceed 100psi. A pressure regulator may be necessary.
	High pressure in tank	Empty storage tank of water. Set tank air pressure to 5 psi. See previous page.
4. Noise from faucet or drain	Air gap faucet	Inherent sound with air-gap faucets.
	Location of drain saddle	See diagram for proper location of drain saddle.
	Restriction in drain tube	Clear blockage sometimes caused by debris from garbage disposal or dishwasher.
	High water pressure	Pressure regulator recommended if 80 psi and required if 100 psi.
5. Faucet leaks from the air gap feature	Crimp in drain line	Check tubing.
	Restriction in drain line	Straighten all drain lines. Clear blockage. Cut off any excess tubing.
	Drain tube clogged	Caused from dishwasher or garbage disposal. Disconnect the 3/8" black line at the drain, clean the 3/8" black line out with a wire, then re-connect. Blowing air through the line will not always remove the clog.
6. Small amount of water in storage tank	System just starting up	Normally it takes 6-10 hours to fill tank. Note: Low pressure and/or temperature can drastically reduce production rate.
	Low water pressure	See #1 above
	Excessive air in tank bladder	Tank pressure is set at the factory and should be 5 psi when empty. Add if below 5 psi and bleed if above 5 psi. Check only when tank is empty. See previous page.
7. Water leaks from the filter housing	Not properly tightened	Tighten the bowl (Hand tight)
	Missing O-ring	Turn off the water supply and release the pressure. Replace the o-ring if necessary. Then lubricate it and make sure the o-ring is seated in the filter bowl properly before reinstalling the filter bowl.
	Kinked O-ring	

## Arsenic Fact Sheet

Arsenic (As) is a naturally occurring contaminant found in many ground waters. Arsenic in water has no color, taste or odor. It must be measured by an arsenic test kit or lab test. Public water utilities must have their water tested for arsenic. You can obtain the results from your water utility contained with in your consumer confidence report. If you have your own well, you will need to have the water evaluated. The local health department or the state environmental health agency can provide a list of test kits or certified labs.

There are two forms of arsenic: pentavalent arsenic (also called As (V), As (+5)) and trivalent arsenic (also called As (III), As (+3)). In well water, arsenic may be pentavalent, trivalent, or a combination of both.

RO systems are very effective at removing pentavalent arsenic. A free chlorine residual will rapidly convert trivalent arsenic to pentavalent arsenic. Other water treatment chemicals such as ozone and potassium permanganate will also change trivalent arsenic to pentavalent arsenic. A combined chlorine residual (also called chloramine) may not convert all the trivalent arsenic. If you get your water from a public water utility, contact the utility to find out if free chlorine or combined chlorine is used in the water system.

This Watts Premier reverse osmosis system is designed to remove pentavalent arsenic. It will not convert trivalent arsenic to pentavalent arsenic. Under laboratory standard testing conditions, this system reduced 0.30 mg/L (ppm) pentavalent arsenic to under 0.010 mg/L (ppm) (the USEPA standard for drinking water). Actual performance of the system may vary depending on specific water quality conditions at the consumer's installation.

The RO component of this Watts Premier reverse osmosis system must be maintained according to its recommended maintenance cycle. Specific component identification and ordering information can be found in the installation/operation manual maintenance section, by phone at 1-800-752-5581 or online [www.wattspremier.com](http://www.wattspremier.com).

# California Certification

State of California  
Department of Health Service  
Water Treatment Device  
Certificate Number

00 - 1452

Date Issued: October 17, 2000  
Date Revised: November 10, 2003

---

## **Trademark/Model Designation**

Watts Premier Deluxe Plus  
Watts Premier Ultra 5  
Watts Premier PUR-TEK  
Watts Premier Watts 25  
Watts Premier RO-TFM-5SV  
Watts Premier RO-TFM-4SV  
Watts Pure Water Watts RO-4  
Watts Pure Water Watts RO-5  
Watts Premier CRO-TFM-5SV-25  
Watts Premier WP-5

---

**Manufacturer:** Watts Premier, Inc.

---

## **Replacement Elements:**

sediment  
carbon  
membrane  
post filter

**The water treatment device(s) listed on this certificate have met the testing requirements of section 116830 of the Health and Safety Code for the following health related contaminants:**

---

## **Microbiological Contaminants and Turbidity**

Cysts

## **Inorganic Contaminants**

Arsenic

# Performance Data Sheet

**Watts Premier Inc.**  
**1725 W. Williams Drive C-20**  
**Phoenix, AZ 85027 USA**  
**California Certification # 00-1452**  
**Watts Premier Product Data Sheet**

**5 SV Deluxe Plus, CRO-TFM-5SV-25, RO-TFM-4SV, RO-TFM-5SV, Pur-Tek, Ultra 5, Watts 25, Watts RO-4, Watts RO-5, and WP-5**  
**System conforms to NSF Standard 58 for specific claims.**

## GENERAL USE CONDITIONS:

1. System to be used with municipal or well water sources treated and tested on regular basis to insure bacteriological safe quality. DO NOT use with water that is microbiologically unsafe or unknown quality without adequate disinfection before and after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts.
2. Operating Temperature: Maximum: 100°F (40.5°C) Minimum: 40° (4.4°C)
3. Operating Water Pressure: Maximum: 100 psi (7.0kg/cm<sup>2</sup>) Minimum: 40 psi (2.8kg/cm<sup>2</sup>)
4. pH 3 to 11
5. No iron present in incoming feed water supply.
6. Hardness of more than 10 grains per gallon (170 ppm) may reduce TFM membrane life expectancy.
7. Recommend TDS (Total Dissolved Solids) not to exceed 1800 ppm.

## RECOMMENDED REPLACEMENT PARTS AND CHANGE INTERVALS:

Note: Depending on incoming feed water conditions replacement time frame may vary.

<u>Description</u>	<u>Change time Frame</u>	<u>Price</u>
Sediment Pre-filter: #5m-10	6 Months	\$4.50
Carbon Pre-filter: #GAC-410-56/#5MCB	6 Months	\$9.00/10.50
Final Carbon filter #1M-6/#1M-10	12 Months	\$9.00/11.95
R.O. Membrane: #TFM-24	2 to 5 years	\$82.95

This system has been tested according to NSF/ANSI 58 for reduction of the substances below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system as specified in NSF/ANSI 58. This system has been tested for the treatment of water containing pentavalent arsenic (also known as As (V), As (+5), or arsenate) at concentrations of 0.30 mg/L or less. This system reduces pentavalent arsenic, but may not remove other forms of arsenic. This system is to be used on water supplies containing a detectable free chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see the Arsenic Facts section of the Performance Data Sheet for further information.

	<b>Avg. In.</b>	<b>Avg. Eff.</b>	<b>% Reduction</b>	<b>pH</b>	<b>Pressure</b>	<b>Max Eff.</b>	<b>Inf. challenge concentration</b>	<b>Max Allowable concentration</b>
								<b>mg/L</b>
Arsenic (Pentavalent)	334.615 ug/L	5.0385 ug/L	98.4%		50psi	19 ug/L	0.30±10%	0.010 mg/L
Barium Reduction	10.2 mg/L	0.207 mg/L	97.9%	7.24	50psi	0.3 mg/L	10.0±10%	2.0
Cadmium Reduction	0.036 mg/L	0.0005 mg/L	98.6%	7.49	50psi	0.0007	0.03±10%	0005
Chromium (Hexavalent)	0.15 mg/L	0.013 mg/L	91.3%	7.24	50psi	0.03	0.03±10%	0.1
Chromium (Trivalent)	0.17 mg/L	.01 mg/L	94.1%	7.24	50psi	0.01	0.03±10%	0.1
Copper Reduction	3.1 mg/L	0.03 mg/L	99.0%	7.64	50psi	0.04	3.0±10%	1.3
Cysts	222,077#/ml	10#/ml	99.99%			58	minimum 50,000/mL	
Fluoride Reduction	8.0 mg/L	0.5 mg/L	93.9%	7.49	50psi	0.7	8.0±10%	1.5
Lead Reduction	0.15 mg/L	0.002 mg/L	98.6%	7.49	50psi	0.003	0.15±10%	0.010
Radium 226/228	25pCi/L	5pCi/L	80.0%	7.24	50psi	5pCi/L	25pCiL±10%	5pCiL
Selenium	0.10	0.008	92.0%		50psi	0.011	0.10±10%	0.05
TDS			96.8%	7.84			750±40mg/L	187
Turbidity	10.2 mg/L	0.26 mg/L	97.5%			0.83	11±1 NTU	0.5 NTU

<b>Model No.</b>	<b>Avg. Influent TDS</b>	<b>Avg. Effluent TDS</b>	<b>Avg. TDS DPR IN/EFF REDUCTION</b>	<b>RECOVERY</b>	<b>GALLONS</b>	<b>EFFICIENCY</b>
	765 mg/l	23mg/l	96.8%	15.5%	9.06gpd	8.35%

Depending on water chemistry, water temperature, and water pressure Watts Premier's R.O. Systems production and performance will vary.

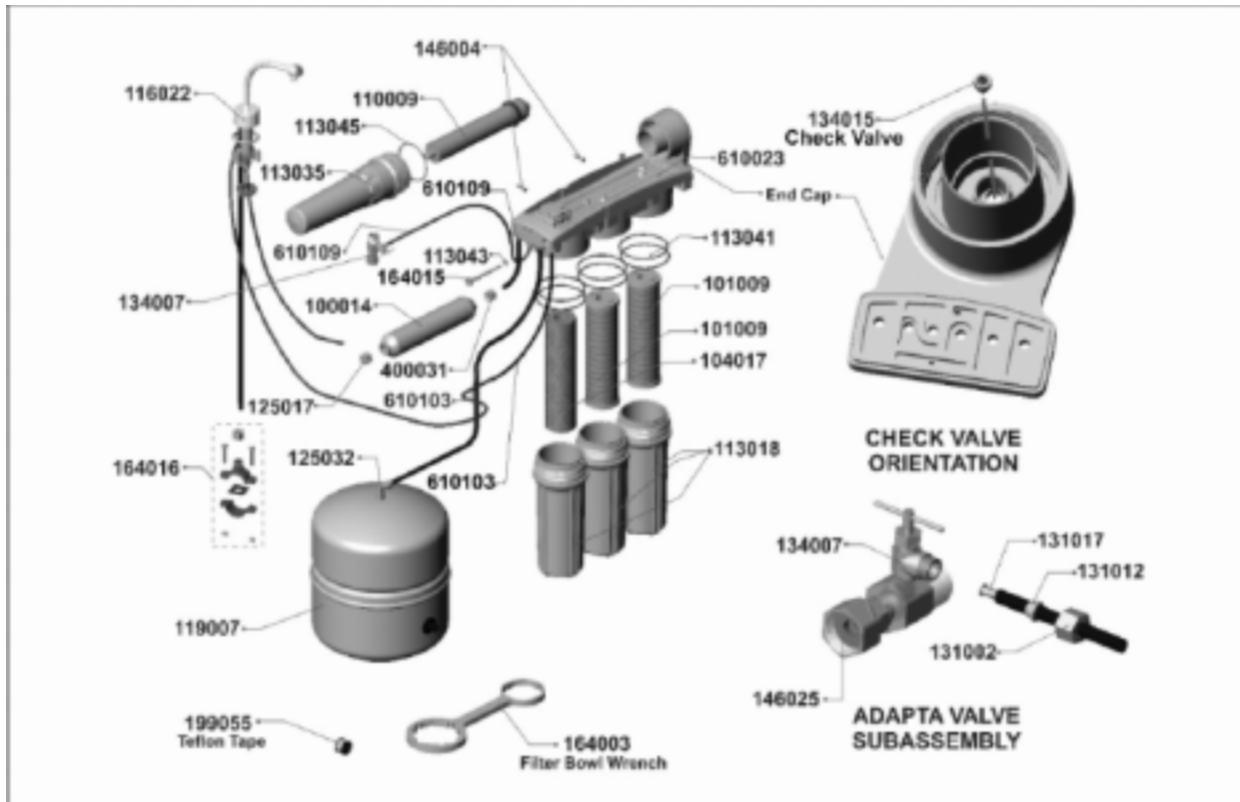
Efficiency rating means the percentage of the influent water to the system that is available to the user as reverse osmosis treated water under operating conditions that approximate typical daily usage. Recovery rating means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed. There is an average of 4 gallons of reject water for every 1 gallon of product water produced.

REFER TO OWNER'S INSTALLATION/SERVICE MANUAL FOR FURTHER MAINTENANCE REQUIREMENTS AND WARRANTY INFORMATION.

Phone: (623) 931-1977

Fax: (623) 931-0191

Email: wpmail@wattsind.com



Watts Part Number	Description
100014	10" In Line Filter
101009	Filter, Carbon block 5mic
104017	Filter, SED-SPUN-10" CTG (5M-10)
110009	Filter, MEM-TFM-25 GPD
113009	Manifold Id *
113018	Bowl, Filter
113035	Membrane (vessel)
113041	Bowl, Filter Slip/Compression O ring (2-341)
113043	Flow Restrictor, Plug Seal O ring (2-013)
113045	Membrane Slip & Compression O ring (2-233)
113049	Flow Insert O-ring (2-109)
116022	Faucet, Wave-AG-Chr
119007	Tank, Pres-3 Gal White
125017	1/4" JACO connector for in-line filter
125032	Tank, Elbow-PL-3/8C X 1/4FPT
131002	Valve, Adapta Valve Nut-Brass-1/4
131012	Valve, Adapta Valve Sleeve-Delrin-1/4
131017	Valve, Adapta Valve Insert-Brass-1/4C
134007	Valve, Adapta Valve
134015	Valve, Check
146004	Screw -#10-1" Phil Panhead
146025	Washer, Adapta Valve
164003	Double Wrench
164015	Flow Restrictor, Plug
164016	Drain Saddle 3/8"
199055	Tape, Roll Teflon Tape 1/2 x 60
400031	3/8" JACO connector for in-line filter
610023	Manifold Assembly (See Parts Description*)
610103	Tube, 3/8" Blue Tubing 4'
610109	Tube, 1/4" Green Tubing (4')

## Other Products from Watts Premier

Watts Premier has other fine water filtration products and accessories to enhance your water and to compliment your existing RO System. Listed on the next several pages are only a few of the items we offer. Visit our website at [www.wattspremier.com](http://www.wattspremier.com) or call our Customer Service Representatives at 1-800-752-5582 (inside USA) 1-623-931-1977 (outside USA) for more products.



### Deluxe Filter replacement kit for 5 stage reverse osmosis systems

Includes one 10" sediment filter, two 10" GAC filters, three pre-lubricated O-Rings, one 6" polishing filter with connectors.

**Part No. 560065** \*\$29.95/Kit

### Deluxe Plus Filter replacement kit

Same as above including a 10" polishing filter instead of a 6".

**Part No. 560066** \*\$31.95/Kit



### Premium Filter replacement kit

Compatible with all Watts Premier Reverse Osmosis and other water filtration systems. These filters provide an extra level of filtration by allowing for more contact between the carbon media and your water.

**Part No. 560002** \*\$34.95/Kit

### Premium Plus Filter Kit

Same as above, plus heavy duty wrench, 10" final filter and fittings.

**Part No. 560067** \*\$43.95/Kit



### Heavy Duty Wrench

This wrench fits all Watts Premier filter bowls, membrane vessel and those of most of competing brands.

**Part No. 164003** \*\$ 4.95/ea



### 3/8" Ice Maker Kit for Ro and Filtration

3/8 inch connection includes 30 feet tubing, ball valve, and fittings.

**Part No. 500010** \*\$ 15.00/ea

\*All prices subject to change without notice.



**Wave Faucets by Watts Premier** allow for a variety of choices to match your kitchen decor.  
Available colors include:

<b>Part No. 116022 Chrome</b>	<b>*\$30.95</b>
<b>Part No. 116010 White</b>	<b>*\$27.95</b>
<b>Part No. 116026 Black</b>	<b>*\$27.95</b>
<b>Part No. 116021 Almond</b>	<b>*\$27.95</b>
<b>Part No. 116002 Black on chrome</b>	<b>*\$25.95</b>
<b>Part No. 116006 White on chrome</b>	<b>*\$25.95</b>



**Watts Premier Ice Maker Kit** - High efficiency replaceable filter that can last up to 3 years or 10,000 gallons. Perfect for residential and commercial ice makers as well as refrigerators, drinking fountains, coffee & tea brewers, motor homes and campers. Reduces chlorine taste and odor.

**Part No. 500327** **\*\$36.95/ea**



### **Whole House Filter**

Great for sediment problems such as in well water supply or areas where dirt and rust particles are a problem. Includes 30 Micron sediment filter, ball valve, mounting bracket and wrench. (1" ports).

**Part No. 500221** **\*\$86.95/ea**

### **Replacement filter**

**Part No. 204009** **\*\$ 7.95/ea**



### **Water Pressure Gauge**

This gauge mounts onto your outside hose connection to accurately show your home's water pressure up to 300 psi. A red needle shows peak overnight pressure, which may exceed readings during the day. High pressure readings may indicate the need for a pressure regulator to prevent damage to appliances.

**Part No. 261003** **\*\$14.95/ea**



### **Pocket Total Dissolved Solids (TDS) Monitor**

Test water electronically to verify reverse osmosis membrane effectiveness. Carrying case included.

**Part No. 273001** **\*\$39.95/ea**



### **Ball Valve Adaptor**

Eliminates the need to drain the tank during normal filter changes. This easy to install valve attaches to the top of your water tank. The valve, plastic tee and teflon tape are included. The tank should always be drained after the membrane is changed.

**Part No. 500077** **\*\$ 9.95/ea**

\*All prices subject to change without notice.



# WARRANTY REGISTRATION

Thank you for selecting Watts Premier for your water filtration needs.

## 4 Ways to Register

### 1. Online at [www.wattspremier.com](http://www.wattspremier.com)

Register your product online and receive a 5% discount on your next online order. Plus receive reduced shipping.

### 2. Call in your information 1-800-752-5582

Call and we will enter your information.

### 3. Fax in your information 623-931-0191

Fax this form directly to us.

### 4. Mail in the information.

Please complete the form below. Mail to: **Watts Premier**

**1725 W. Williams Dr. C-20  
Phoenix, AZ 85027**

Registering will  
insure you  
receive Watts  
**FREE**  
Filter  
Reminder  
Service

Watts Premier Inc. is concerned for the safety of your personal information. Watts Premier collects personal information when you register with Watts Premier. This information is stored in our data base and we do not rent, sell, or share personal information with other people or nonaffiliated companies. We reserve the right to send you certain types of communications such as direct mail, email, or by telephone relating to our products or products that you have purchased. We limit access to your personal information to those employees who will directly provide you with services or products in order to do their jobs. We want to offer you four ways to communicate with us. 1. Online, 2. Fax, 3. Telephone, and 4. Mail the form below. By registering your product you will receive the full benefit of our warranty. Watts Premier will also send you a semi-annual filter change reminder beginning six months from date of installation. To insure the highest quality of your water, filters should be replaced every 6 months. If you have any questions or comments please give us a call at 1-800-752-5582 M-F 8:00am -5:00pm MST.



First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Country:  USA  CANADA  MEXICO  OTHER \_\_\_\_\_

Phone # \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Email Address: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_ Date of Install: \_\_\_\_\_

Installed By:  SELF  Plumbing Professional Where Purchased: \_\_\_\_\_

Model Number: \_\_\_\_\_ Serial Number: \_\_\_\_\_ - \_\_\_\_\_  
XX - XXXXXX

Watts Premier, Inc.  
Phone: 800-752-5582

1725 W. Williams Drive C-20  
[www.wattspremier.com](http://www.wattspremier.com)

Phoenix, AZ 85027  
Fax: 623-931-0191

# WARRANTY REGISTRATION

## **Please Fill out and keep for your Records**

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

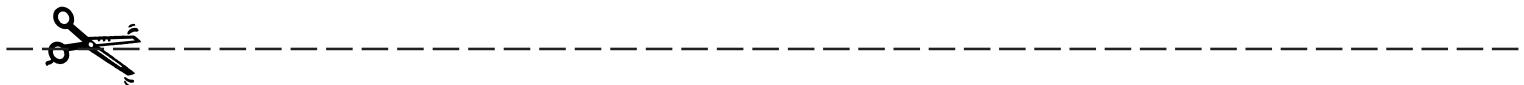
Country:  USA  CANADA  MEXICO  OTHER \_\_\_\_\_

Phone # \_\_\_\_\_ Email Address: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_ Date of Install: \_\_\_\_\_

Installed By:  SELF  Plumbing Professional Where Purchased:

Model Number: **Serial Number:** -



**Insert into envelope and return to Watts Premier**

Watts Premier  
1725 W. Williams Dr. C-20  
Phoenix, AZ 85027

## Service Record

**Date of Purchase:** \_\_\_\_\_ **Date of Install:** \_\_\_\_\_ **Installed by:** \_\_\_\_\_

**Serial No.** \_\_\_\_\_

**NOTES:**

# Limited Warranty



## What your Warranty Covers:

If any part of your WATTS PREMIER Reverse Osmosis System is defective in workmanship (excluding replaceable filters and membranes), return unit after obtaining a return authorization (see below), less tank, within 3 year of original retail purchase, WATTS PREMIER will repair or, at WATTS PREMIER'S option, replace the system at no charge.

## How to obtain Warranty Service:

For warranty service, call 1-800-752-5582 for a return authorization number. Then, ship your Reverse Osmosis unit (less tank) to our factory, freight and insurance prepaid, with proof of date of original purchase. Please include a note stating the problem. Premier will repair it, or replace it, and ship it back to you prepaid.

## What this warranty does not cover:

This warranty does not cover defects resulting from improper installation, (contrary to WATTS PREMIER's printed instructions), from abuse, misuse, misapplication, improper maintenance, neglect, alteration, accidents, casualties, fire, flood, freezing, environmental factors, water pressure spikes or other such acts of God.

This warranty will be void if defects occur due to failure to observe the following conditions:

1. The Reverse Osmosis System must be hooked up to a potable municipal or well cold water supply.
2. The hardness of the water should not exceed 10 grains per gallon, or 170 ppm.
3. Maximum incoming iron must be less than 0.2 ppm.
4. The pH of the water must not be lower than 3 or higher than 11.
5. The incoming water pressure must be between 40 and 100 pounds per square inch.
6. Incoming water to the RO cannot exceed 105 degrees F (40 degrees C.)
7. Incoming TDS/Total Dissolved Solids not to exceed 1800 ppm.
8. Do not use with water that is micro-biologically unsafe or of unknown quality without adequate disinfection before or after the system.

This warranty does not cover any equipment that is relocated from the site of its original installation.

This warranty does not cover any equipment that is installed or used outside the United States of America and Canada.

## LIMITATIONS AND EXCLUSIONS:

WATTS PREMIER WILL NOT BE RESPONSIBLE FOR ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. PREMIER WILL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING TRAVEL EXPENSE, TELEPHONE CHARGES, LOSS OF REVENUE, LOSS OF TIME, INCONVENIENCE, LOSS OF USE OF THE EQUIPMENT, AND DAMAGE CAUSED BY THIS EQUIPMENT AND ITS FAILURE TO FUNCTION PROPERLY. THIS WARRANTY SETS FORTH ALL OF PREMIER'S RESPONSIBILITIES REGARDING THIS EQUIPMENT.

## OTHER CONDITIONS:

If PREMIER chooses to replace the equipment, WATTS PREMIER may replace it with reconditioned equipment. Parts used in repairing or replacing the equipment will be warranted for 90 days from the date the equipment is returned to you or for the remainder of the original warranty period, whichever is longer. This warranty is not assignable or transferable.

## YOUR RIGHTS UNDER STATE LAW:

Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply. This warranty gives you specific legal rights, and you may have other legal rights which vary from state to state.